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A4A ALA ALC ALG ALN ALQ AN
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(56) Documents cited
GB 1523485 A GB 0865259 A GB 0864155 A
US 4721222 A US 4715510 A US 4478346 A
US 4098439 A

(58) Field of search
UK CL (Edition K) A2B BAAA, A4A ALA ALC ALG
ALN ALQ AN AU
INT CL⁶ A47G, A47J

(54) Beverage mixing device
suitable for attachment to beverage
cans

(57) An attachment suitable for holding
eg ice cream, ice cubes, citrus fruit
slices, is fitted to a beverage container
eg. a can, and enables the beverage to
mix with the contents of the attachment
with the resulting mixture being
consumed directly.

The attachment comprises an
upper section (9) and a lower section
(10), hinged together and forming a
hollow receptacle, which fits to the top
of a standard drinks can (11). Lug (1)
ensures correct alignment between the
can (11) and the attachment. Air
channel (3) allows air to enter the can
(11) as the beverage is being
consumed, allowing even flow. The top
surface of the device has a contour (8)
which is similar to the top of a standard
drinks can (11) and allows stacking.
The drinking aperture in the upper
section (9) is fitted with a lid (5).

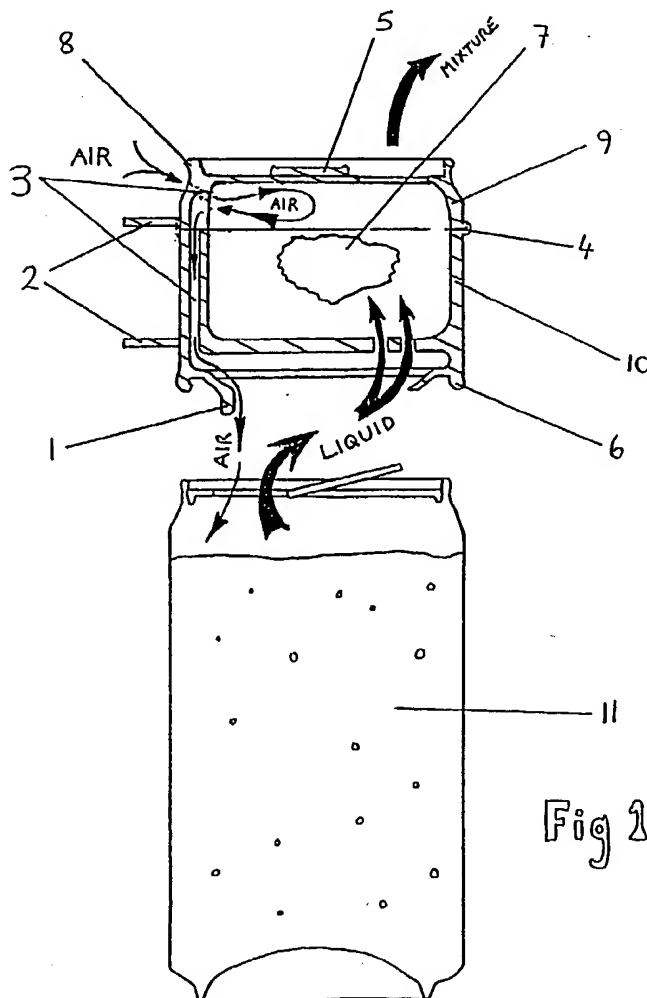


Fig 1

SCALE 1:1

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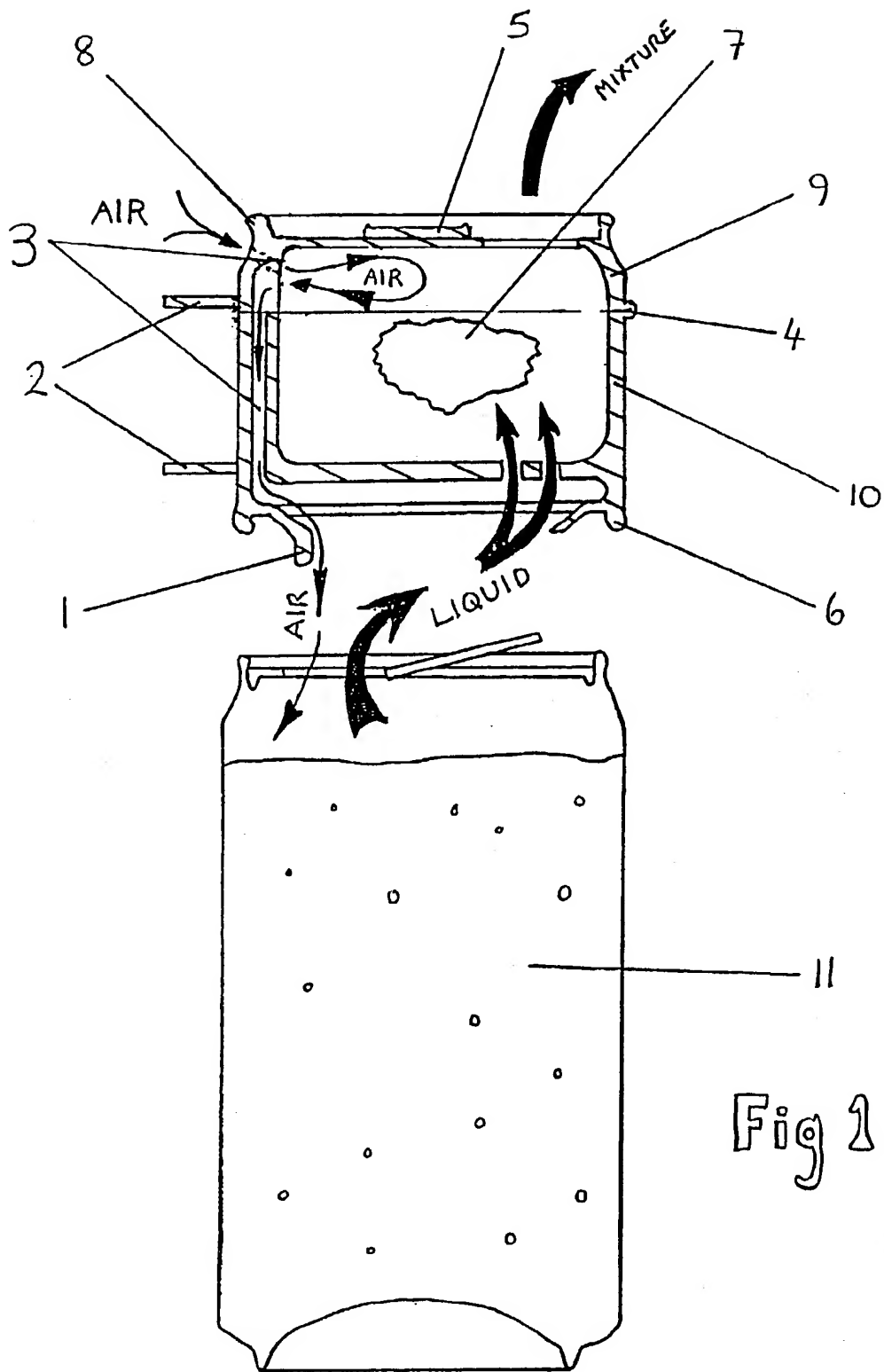


Fig 1

SCALE 1:1

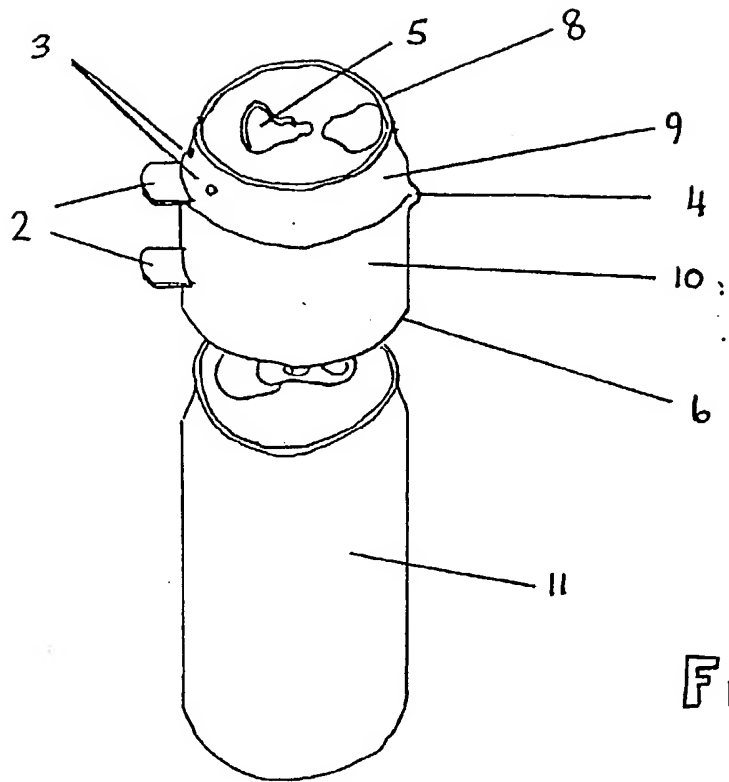


Fig 2

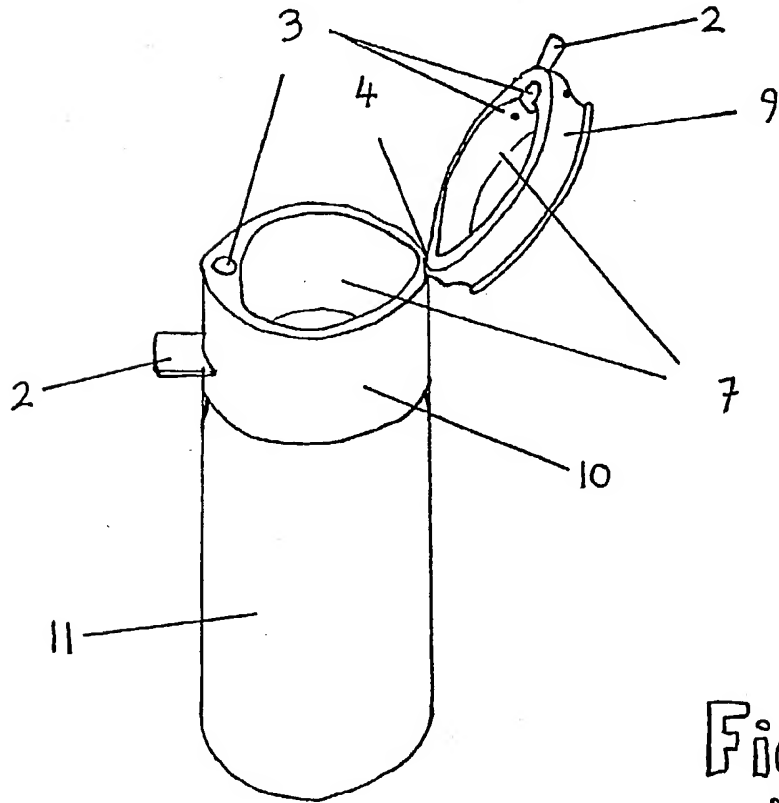


Fig 3

BEVERAGE MIXING DEVICE

This invention relates to a beverage mixing device.

It is common practice to mix drinks with solid or semi-solid substances, such as ice, slices of citrus fruit or, specifically, ice cream, producing an "ice cream float". Glasses can be used for the mixture, or, in the case of the ice cream float, a desert bowl is often used. A significant proportion of beverage is consumed direct from cans, however, and mixing is not easily achieved. Many retail outlets which supply canned beverages also supply ice cream. Canned drinks and ice cream are often sold together but consumed separately.

According to the present invention, there is provided an attachable and detachable receptacle (for the ice cream or any other solid or semi-solid) which mounts on the top of the standard drinks can (by push-fit or other means). An air channel is provided so that, as beverage is consumed, air can enter the can via the device to ensure even flow. To allow even flow the can must be tilted for drinking with the can's drinking aperture away from the drinker, so a lug protrudes from the base of the device into the can's drinking aperture, thus ensuring correct alignment for successful operation.

Access to the ice cream, etc., compartment is by means of a hinged lid. The uppermost surface has contours which allow stacking of devices, or cans with devices fitted. The drinking aperture in the top of the device has a means to close the aperture when not in use.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-
Figure 1 shows, in section, the device and a can in position prior to joining;

Figure 2 shows in perspective the device closed and in position above a can ready for joining;

Figure 3 shows the device in open position and joined to a can.

Referring to the drawing the device comprises a hinged body composed of an upper section 9 and a lower section 10. The lower section 10 has a lower edge 6 which provides a secure and waterproof join to the can 11 top. The upper section 9 is opened by means of the grips 2, allowing ice cream or other solid or semi-solid to be inserted in the receptacle 7. The upper section 9 is closed by means of the grips 2, or by pressure on the upper section 9. A lug 1 protrudes from the lower edge of the lower section 10. This lug 1 aligns with the can's drinking aperture, ensuring correct alignment of the can and the device for even beverage flow. The channel 3 is to allow air to re-enter the can as beverage is drunk, ensuring more even beverage flow. The drinking aperture in the upper section 9 is fitted with a removable but always attached lid, 5. The upper section 9 has an upper contour 8 which is similar to the contour of a standard can top, thus allowing stacking of devices or cans with devices fitted, in any combination. All joints must be watertight to eliminate any leakage during use.

A particular feature of the air venting system is that the air first enters the receptacle 7 via two small holes of approximately 1.5mm diameter. These allow air to enter but their small diameter inhibits the escape of liquid. The air then vents from the receptacle 7 through the vertical air channel 3 to the can.

Should any liquid inadvertently rise up the vertical air vent 3, it is safely returned to the receptacle 7.

CLAIMS

1 A beverage mixing device comprising a receptacle for ice cream (or other substances, for example ice cubes, citrus fruit slices) and means for the beverage to enter the receptacle, pass over or mix with the contents and exit directly to a drinker's mouth.

2 A beverage mixing device as claimed in Claim 1 which attaches by push-fit or other means to the top of a drinks can and is removable.

3 A beverage mixing device as claimed in Claim 1 or Claim 2 which allows air to enter the can ^{via} the device in order to allow even beverage flow, ^{or drinking vessel} in such a way as to avoid liquid escaping via the vent.

4 A beverage mixing device as claimed in Claim 2 or Claim 3 wherein the means for ensuring correct orientation of a can for even flow is by means of a lug protruding from the lower edge of the device into the drinking aperture of the can. The lug may flex to allow fitting to unopened can for transit, springing down once the device is removed.

5 A beverage mixing device as claimed in Claims 1 - 4 wherein the means for gaining access to the receptacle for loading is a hinged lid.

6 A beverage mixing device ^(as claimed in Claims 2-5) wherein the uppermost surface of the device is similar in shape to the top of a standard can for the purpose of stacking devices, stacking cans with devices attached, with cans or stacking cans with devices attached, with others similarly joined.

7 A beverage mixing device as claimed in Claims 1 - 6 wherein the drinking aperture is fitted with a means to close it when not in use.

8 A beverage mixing device substantially as described herein with reference to Figures 1 - 3 of the accompanying drawing.

Category	Identity of document and relevant passages	Relevant to claim(s).

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).

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Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

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Relevant Technical fields

(i) UK Cl (Edition K) A4A (AU, AN, ALN, ALQ, ALA, ALC, ALG)
A2B (BAAA)

(ii) Int Cl (Edition 5) A47G
A47J

Search Examiner

DR C L DAVIES

Databases (see over)

(i) UK Patent Office

(ii)

Date of Search

12 NOVEMBER 1992

Documents considered relevant following a search in respect of claims 1-8

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 1523485 A (SPENCER) see Figures and page 3 lines 20-48	1,7
X	GB 0865259 A (ATLAS PLASTICS LTD) see Figures	1,2,7
X	GB 0864155 A (MORETON) see Figures	1,2,7
X	US 4721222 A (HAYTHORNTHWAITE) see Figures and column 4 lines 24-27	1,2,7
X	US 4715510 A (VAN DER MEULEN)	1,2
X	US 4478346 A (SPONG) see Figure 3b	1,3,7
X	US 4098439 A (BLOW) see whole document and especially Figure 10	1,2,5,7